Based Upon: PCT/EP2004/010725

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A blood pressure measuring method, wherein a pulse oscillogram (PO) of a patient is determined and ~~from this the~~ used to detect a blood pressure which is ~~detected and~~ displayed, the method comprising:

~~characterized in that,~~

~~in the course of~~ while determining the ~~individual~~ pulse oscillogram (PO), performing an analysis ~~regarding~~ of a hemodynamic stability ~~is furthermore performed~~, wherein at least one of a hemodynamic parameter ~~and/or~~ and at least one other physiological parameter which correlates with the hemodynamic parameter are evaluated with [[in]] respect to chronological changes[[,]]; and

obtaining assessment criteria for ~~the~~ a presence of the hemodynamic stability ~~are obtained~~ from the analysis[[,]] by ~~means of~~ which one of a ~~the~~ determination of the blood pressure value [[or]] and the determined blood pressure value ~~are~~ is brought into a correlation to ascertain ~~in such a way that it is ascertained~~ whether the blood pressure value was obtained during the hemodynamic stability, or that a corrected blood value is determined.

2. (Currently Amended) The method in accordance with claim 1, wherein ~~characterized in that~~ a warning indication is generated by ~~means of the~~ an evaluation criteria if ~~they deviate~~ there is a deviation from one of a preset [[or]] and a predeterminable threshold criteria.

3. (Currently Amended) The method in accordance with claim ~~1 or~~ 2, wherein ~~characterized in that~~ the individual pulse oscillogram (PO) is subjected to an analysis regarding the hemodynamic stability.

4. (Currently Amended) The method in accordance with ~~one of the preceding claims, characterized in that~~ claim 3, wherein prior to obtaining the assessment criteria, influential values of at least one of artifacts ~~and/or~~ and arrhythmia are suppressed.

5. (Currently Amended) The method in accordance with claim ~~3 or~~ 4, wherein at least one of ~~characterized in that~~ a pulse period progression (2.2), ~~and/or~~ a pulse amplitude progression (3), ~~and/or the~~ and a pulse shape (6)~~, are~~ is determined and analyzed from the pulse oscillogram (PO), and the assessment criteria from one of the pulse period progression (2.2), the pulse amplitude progression (3), the pulse shape (6), ~~or from~~ and a combined evaluation are formed from at least two items of ~~this~~ base information.

6. (Currently Amended) The method in accordance with claim 5, wherein ~~characterized in that~~ pulse period lengths of at least a starting range and an end range of the pulse oscillogram (PO) are compared with each other, and a

deviation of the pulse period lengths of ~~the~~ a starting range ($T_{initial}$) and ~~the~~ an end range ($T_{terminal}$) is made ~~the~~ a basis of the assessment criteria.

7. (Currently Amended) The method in accordance with claim 6, wherein ~~characterized in that the~~ a deviation of the lengths of the pulse period is calculated by ~~means of~~ the pulse oscillogram (PO) as ~~the~~ a difference of ~~the~~ lengths of the periods of the starting range and the end range as a function of a mean pulse period length of the pulse oscillogram.

8. (Currently Amended) The method in accordance with claim 5, wherein ~~characterized in that the~~ an entire progression of all pulse periods in regard to their chronological change is determined[[,]] and ~~this change is~~ used as a measure for the hemodynamic stability.

9. (Currently Amended) The method in accordance with claim 5, wherein ~~characterized in that the~~ an entire progression of ~~the~~ pulse-specific systolic times in regard to ~~their~~ changes over time is determined[[,]] and ~~this change is~~ used as a measure of the hemodynamic stability.

10. (Currently Amended) The method in accordance with ~~one of claims 5 to~~ claim 9, wherein ~~characterized in that~~ an assessment of ~~the~~ a constancy of the pulse period progression (2.2) is included when forming the assessment criteria.

11. (Currently Amended) The method in accordance with ~~one of claims 5 to~~ claim 10, wherein ~~characterized in that~~ a rise (α) in ~~the~~ an ascending branch of ~~the~~ one of an envelope [[or]] and a rise (β) in ~~its~~ a descending branch, [[or]] a plateau width (PL) around ~~their~~ a maximum, or a combination of at least two of these characteristic values from the pulse amplitude progression (3) ~~is/are~~ each is used as a characteristic ~~value(s)~~ value for forming the assessment criteria.

12. (Currently Amended) The method in accordance with claim ~~5 to~~ 11, wherein ~~characterized in that~~ as the assessment criteria for the hemodynamic stability the analysis of the pulse shape (6) includes a determination of at least one ~~or several rises~~ rise at least at one point of at least one of an ascending flank and ~~and/or~~ a descending pulse flank, and a chronological change in the ~~rise(s)~~ rise at the respective points or a ratio of the rises at least at two points of a pulse is checked for different pulses.

13. (Currently Amended) The method in accordance with claim ~~5 to~~ 12, wherein ~~characterized in that~~ for forming the assessment criteria, at least one of the pulse period progression (2.2), the pulse amplitude progression (PA) and ~~and/or~~ the pulse shape (6) ~~are~~ is weighted one of identically [[or]] and differently[[,]] depending on ~~their~~ a markedness.

14. (Currently Amended) The method in accordance with ~~one of the preceding claims, characterized in that, as another parameter~~ claim 13, wherein at least one of a breathing frequency signal, an electrocardiogram signal ~~and/or~~ and a skin impedance measurement signal ~~are~~ each is determined and evaluated in regard to ~~their~~ a chronological change during the individual blood pressure measurement.

15. (Currently Amended) The method in accordance with claim 14, wherein ~~characterized in that the~~ a breathing frequency signal is obtained from one of the analysis of the pulse oscillogram~~, or~~ and by ~~means of~~ an additional sensor arrangement.

16. (Currently Amended) The method in accordance with ~~one of the preceding claims, characterized in that the~~ claim 15, wherein a diagnosis

of [[a]] the hemodynamic instability is ~~employed for~~ an automated correction of the error effects.

17. (Currently Amended) A sphygmomanometer for executing the method in accordance with claim 1, having an inflatable cuff and an evaluating device which can be arranged thereon or connected to it, with a unit (1) creating [[a]] the pulse oscillogram (PO), a blood pressure determination device and a display device, comprising ~~characterized in that~~ the evaluating unit ~~furthermore has~~ having an assessment arrangement ~~which is~~ embodied ~~in such a way~~ so that assessment criteria for the presence of hemodynamic stability are formed with it during the determination of the individual pulse oscillogram (PO), and the display device ~~is provided with~~ has an indicator of the hemodynamic instability.

18. (Currently Amended) The sphygmomanometer in accordance with claim 17, wherein ~~characterized in that~~ the assessment arrangement is designed for detecting at least one of a pulse period progression (2.2), ~~and/or~~ a pulse amplitude progression (3), ~~and/or~~ pulse forms (6) from the pulse oscillogram (PO), ~~and the~~ a formation of the assessment criteria from the pulse period progression (2.2), ~~and/or~~ a pulse amplitude progression (3), ~~and/or~~ and a pulse form change.

19. (Currently Amended) The sphygmomanometer in accordance with claim ~~17 or~~ 18, wherein ~~characterized in that~~ the assessment arrangement ~~is designed for detecting~~ detects at least one secondary physiological ~~(secondary)~~ parameter correlating with a change of ~~the~~ hemodynamics which relates to at least one of a breathing frequency signal, an electrocardiogram signal and ~~and/or~~ a skin impedance signal.

20. (New) The sphygmomanometer in accordance with claim 17, wherein the assessment arrangement detects at least one secondary physiological parameter correlating with a change of hemodynamics which relates to at least one of a breathing frequency signal, an electrocardiogram signal and a skin impedance signal.

21. (New) The method in accordance with claim 1, wherein the individual pulse oscillogram (PO) is subjected to an analysis regarding the hemodynamic stability.

22. (New) The method in accordance with claim 1, wherein prior to obtaining the assessment criteria, influential values of at least one of artifacts and arrhythmia are suppressed.

23. (New) The method in accordance with claim 3, wherein at least one of a pulse period progression (2.2), a pulse amplitude progression (3), and a pulse shape (6) is determined and analyzed from the pulse oscillogram (PO), and the assessment criteria from one of the pulse period progression (2.2), the pulse amplitude progression (3), the pulse shape (6), and a combined evaluation are formed from at least two items of base information.

24. (New) The method in accordance with claim 23, wherein pulse period lengths of at least a starting range and an end range of the pulse oscillogram (PO) are compared with each other, and a deviation of the pulse period lengths of a starting range ($T_{initial}$) and an end range ($T_{terminal}$) is made a basis of the assessment criteria.

25. (New) The method in accordance with claim 23, wherein a deviation of the lengths of the pulse period is calculated by the pulse oscillogram (PO) as a difference of lengths of the periods of the starting range and the end range as a function of a mean pulse period length of the pulse oscillogram.

26. (New) The method in accordance with claim 23, wherein an entire progression of all pulse periods in regard to their chronological change is determined and used as a measure for the hemodynamic stability.

27. (New) The method in accordance with claim 23, wherein an entire progression of pulse-specific systolic times in regard to changes over time is determined and used as a measure of the hemodynamic stability.

28. (New) The method in accordance with claim 5, wherein an assessment of a constancy of the pulse period progression (2.2) is included when forming the assessment criteria.

29. (New) The method in accordance with claim 5, wherein a rise (α) in an ascending branch of one of an envelope and a rise (β) in a descending branch, a plateau width (PL) around a maximum, or a combination of at least two of these characteristic values from the pulse amplitude progression (3) each is used as a characteristic value for forming the assessment criteria.

30. (New) The method in accordance with claim 5, wherein as the assessment criteria for the hemodynamic stability the analysis of the pulse shape (6) includes a determination of at least one rise at least at one point of at least one of an ascending flank and a descending pulse flank, and a chronological change in the rise at the respective points or a ratio of the rises at least at two points of a pulse is checked for different pulses.

31. (New) The method in accordance with claim 5, wherein for forming the assessment criteria, at least one of the pulse period progression (2.2), the pulse amplitude progression (PA) and the pulse shape (6) is weighted one of identically and differently depending on a markedness.

32. (New) The method in accordance with claim 1, wherein at least one of a breathing frequency signal, an electrocardiogram signal and a skin impedance measurement signal each is determined and evaluated in regard to a chronological change during the individual blood pressure measurement.

33. (New) The method in accordance with claim 32, wherein a breathing frequency signal is obtained from one of the analysis of the pulse oscillogram and by an additional sensor arrangement.

34. (New) The method in accordance with claim 1, wherein a diagnosis of the hemodynamic instability is an automated correction of the error effects.